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(54) Title: PROTEIN EXPRESSION IN FLORAL CELLS

## (57) Abstract

This invention is directed to a method for the expression of a gene of interest, or a chimeric or modified gene allowing the localization of a protein, protein fusion, peptide or fragment of interest within the extracellular domain of a floral cell. This method comprises preparing a construct comprising a promoter sequence capable of expressing a gene encoding the protein, protein fusion, peptide, or fragment of interest, within the floral cell; a translated sequence of the protein, protein fusion, peptide, or fragment of interest, which is localized within the extracellular domain of a floral cell; a gene that encodes the protein, protein fusion, peptide, or fragment of interest; and a terminator sequence, and transforming a plant. Plants transformed with such a construct are characterized as having a protein, fragment thereof, or peptide of interest on the surface of a floral cell. Such localized proteins or peptides may be used for the purposes of peptide display, mediating plant sterility, modifying pollen-pistil interactions, altering pollen for insect consumption etc.

